

# Phry·no·so·ma·tics

noun, 1. people enthusiastically dedicated to reversing the decline and supporting the conservation of horned lizards. From the genus *Phrynosoma* - the horned lizards.

August 1991

A Monthly Newsletter of the Horned Lizard Conservation Society

*A Research & Recovery Committee Communication . . .*

## Phrynosoma Phacts *by Melanie Typaldos*

*I welcome questions and comments! If you want to discuss the information in this article, or if you'd like to suggest a topic for a future column, see me at the monthly meeting or drop me a line: Melanie Typaldos, P.O. Box 18494, Austin, Texas 78760*

### Thermal Regulation

Have you ever wondered what it means when people refer to reptiles as "cold-blooded"? That term, possibly more than anything else, may be responsible for the general public's belief that reptiles are cold and slimy. I hope that all of us in HLCS are aware that this is not true. I've heard horned lizards described in many ways, but I'm sure I never heard either cold or slimy!

Reptiles differ from mammals and birds in the way they regulate their internal body temperatures. Mammals and birds generate body heat internally through biochemical reactions. This is called *endothermy*. Endothermy allows an animal to maintain a constant body temperature over a wide range of external temperatures. This method of temperature regulation requires large amounts of energy and much of the food that a mammal or bird consumes is expended on the simple maintenance of their preferred body temperature.

Reptiles and other "cold-blooded" animals depend on the external environment to regulate their body temperatures, this is called *ectothermy*. Because the external environment is used to generate body heat, ectotherms do not need to consume food calories for this purpose. This means that ectotherms are more efficient utilizers of their food resources than endotherms are... they require fewer calories per kilogram of body weight in order to survive and flourish.

Ectothermy does not imply that the blood (or body) of these animals is any colder than that of similarly sized endotherms. It is generally true however that ectotherms, at least from temperate climates, allow their body temperatures to fluctuate more than that of endotherms.

Ironically, while lizards, as reptiles, have been stereotyped as cold-blooded, many people believe just the opposite of them. This belief that lizards prefer high body temperatures probably arises from the fact that they are most easily viewed in arid habitats (where there is less cover) and while basking. However, experiments have shown that the average body temperature of an active diurnal (daytime-active) lizard is about 98-100° F. This puts them right in the range with human beings!

Lizards, like all reptiles, are able to use the heat available in their environment to adjust their body temperature and maintain it within a narrow range during active periods. In fact, a lizard found at a high altitude in Peru was found to have a temperature of 31° C. (88° F.) while the temperature in the nearby shade was only 0° C. (32° F).

### Horned Lizard Thermal Regulation

Horned lizards are a good example of how ectothermic animals regulate their

*continued on page 7*

## Out-of State Researchers Offer Horny Toads Help

*by Lee Stone*

Dr. Wade Sherbrooke, Southwestern Research Station in Arizona, wrote to us and at our request recommended several researchers who might have information to help us decide what to do for horny toads here in Texas.

Dr. James C. Munger was one of those folks. We wrote him at his present address at the Boise State University in Idaho. Here is his letter:

Dear (HLCS),

I applaud your efforts to conserve the horned lizards of Texas.

Has anyone done diet analysis on horned lizards to see if they are taking fire ants? I seem to recall from my work in Arizona that they occasionally took individuals of *Solenopsis xyloni*, but I think that the biology of *S. xyloni* is very different from the imported fire ants that you are battling. Knowing the diet of horned lizards will let you know if they do take fire ants and will give you some confidence that your strategy of fighting fire ants will, in fact, help horned lizards. It is quite easy to identify the head capsules of ants recovered from fecal pellets. Fecal pellets can be gathered by holding a horned lizard overnight.

*continued on page 7*

## Upcoming Events

**PARTY AT THE CURRY'S HOME** — Saturday, August 3th, 7:30 p.m. at the home of Tom and Susan Curry, 302 Lake Hills Drive, Austin, 265-3907 (map on page 3)

**GENERAL MEETING**— Tuesday, August 13th, 7 p.m. Austin Nature Center

**RESEARCH AND RECOVERY COMMITTEE** — Wednesday, August 21st, 6 to 8 p.m. at the home of Wedny Donaldson, 3510 Basford Road, (2 blks. west of Airport Blvd. off 38-1/2 Street), 499-0158.

## Burglary Alert!

In May, one of our member's car was burglarized while she was in the meeting. The car was parked on Stratford Drive just outside the entrance gate to the Nature Center. Lea Stone advises everyone to park as close to the meeting room as possible, inside the gate and on the driveway up to the Nature Center. There have been many burglaries in the area in the recent past. ▲

## Bart's Notes —

Woody Allen said "Mankind is poised at a crossroads in history. Down one path lies death and destruction, while down the other path is hopelessness and despair. Let us hope we have the wisdom to choose correctly." Words to live by.

Our organization is poised at a crossroads this summer. We could rock along in much the same way we've been going; we could explode into dozens of chapters all across the southwestern United States; we could fizzle out... The possibilities are endless.

Last October, when I stood in front of that excited group of 200 people at our first meeting, I realized that the idea of restoring horny toad populations was an idea whose time has come. I also realized that the big challenge would be leadership. All across Texas, and elsewhere, there are people eager to work hard to bring back our little friends. They just need to be given some guidance as to what to do.

Since then I've been trying to figure out what to do. The way I see it there are three important factors: patience, specialization, and fun. If the leadership of HLCS can master these three ingredients of success, we cannot fail.

**Patience.** We'll be having our first anniversary in a couple of months and there aren't any more horny toads around now than there used to be. I've seen several people leave this organization and I've done some soul searching to figure out why. In every instance I think the main factor has been a lack of patience. I expect that several years down the road I (or whoever the leader of HLCS happens to be) will have to repeat the words "be patient, we'll get there." I have known from the start that our goal of restoring large populations of horny toads would take many years. Relax. We're off to a great start. Many exciting turns in our journey lie just ahead.

**Specialization.** While some people have left HLCS, many have stayed, and the difference has been quite obvious. Those who have stayed have found a comfortable, specialized place within the organization. There are artists, communicators, organizers, computer specialists, lawyers, etc., etc., each contributing little by little toward the overall goal. I'm always reaching out to those of you in HLCS for help. If you haven't found your specialized place yet, please contact me or any other person within our leadership. HLCS wants your particular skills!

Fun. Nobody is going to stay for the long haul if they're not having any fun. I certainly am not. We're all volunteers. If you know any good jokes, bring them to the meetings. Come to the party! Write funny articles. Help with the programs. Have you hugged your fellow hornytoader lately?

### Andy Price to Speak in August

The speaker for our August 13th meeting is none other than Andrew H. Price, Ph.D., zoologist with the Texas Natural Heritage Program, Resource Protection Division of Texas Parks and Wildlife. Andy is the horny toad expert at Parks and any effort aimed at increasing populations by the intervention of people like us will have to have his blessing. Its that simple.

Just so that we're all on the same wavelength, let me quote what Andy has to say on the question of captive breeding. This is from a letter on the subject dated May 25, 1990:

"Let me reiterate that I have a great deal of empathy with individuals who are concerned with the disappearance of the Texas Horned Lizard and want to do something about it. My specific objections to your individual request (and others like it) can be summarized as follows:

1. *Phrynosoma cornutum* is doing fine in many portions of its range, so an argument grounded on captive breeding to "save the species" is fallacious.
2. Until the reasons behind the decline and/or disappearance of *P. cornutum* in certain portions of Texas are understood with better precision and detail, reintroduction are merely treating the symptoms and not the cause.
3. Anyone who has worked with *P. cornutum* throughout its range recognizes that there are marked differences in color, pattern and morphology between populations. These undoubtedly reflect genetic differences as well, and obscuring these differences needlessly through a program of reintroduction would merely repeat a pattern in which many biologists find little merit.
4. Any reintroduction of *P. cornutum* to portions of its former range should be done in a systematic fashion so that the results can be scientifically evaluated. Since *P. cornutum* is a relatively K-selected lizard species,

## Bill Davis Reports —

### May Meeting Notes

At the May meeting we started off talking about plans for the field trip to Chaparral Wildlife area to see Horny Toads in action (which turned out to be a great success!).

Another discussion arose on whether we should be a national or a local organization. Since the topic needs to be resolved (rehashing the same old arguments is getting old), the July meeting was designated as a legislative session — a time to *list* the pros and cons for everyone to see, read, discuss, and take a vote. I still feel strongly that since all work is voluntary, the people who want to work for national should be allowed to do so. I would hate to vote against letting a volunteer do the job they want to do.

One of the members felt Bart talked too much. Well . . . He is the president. Raise your hand, everyone gets to have his/her say.

Again, if you want to have input on by-laws, YOU CAN. Just contact George or Bart.

Lea Stone gave a report on facts she received from James Munger, a "noted" Horny Toad follower. Gave an explanation as to how Horny Toad air conditioning works (Hint: Solar power) which means that raising Horny Toads indoors is a mucho bad idea. For a number of reasons they become unhealthy. Eating habits: They love dem harvester ants! Will eat 200 a way WITHOUT seasoning. Though not from the same mound or all at once. Apparently a Horny Toad will move as much as 300 meters a day and feed at several mounds in their "territory". For propagation purposes, there has to be a larger area and more mounds than I previously thought. To drink, they tilt their bodies forward and let the water run down their bodies to their mouth. (Yuck, drinking bath water). ▲

unrestricted efforts at captive breeding may very well cause harm to existing healthy populations of the species."

So that's where Andy is basically coming from. If we begin our discussions with him thoroughly aware of his position, then we can quickly get down to the nitty gritty of formulating programs that will move us toward our goal. See you all at the meeting, and whatever you do, don't miss the party.

— Bart Cox

# There's Horned Lizards in That There Yard!

by Jack Neil Morse

The H. L. C. S. recently received a request for assistance from Mollie DuBois of Smithville. Seems that Mollie has a yard full of grass burrs, red ants, and horned lizards. She wanted to know how to rid her yard of the first two denizens without disturbing the third.

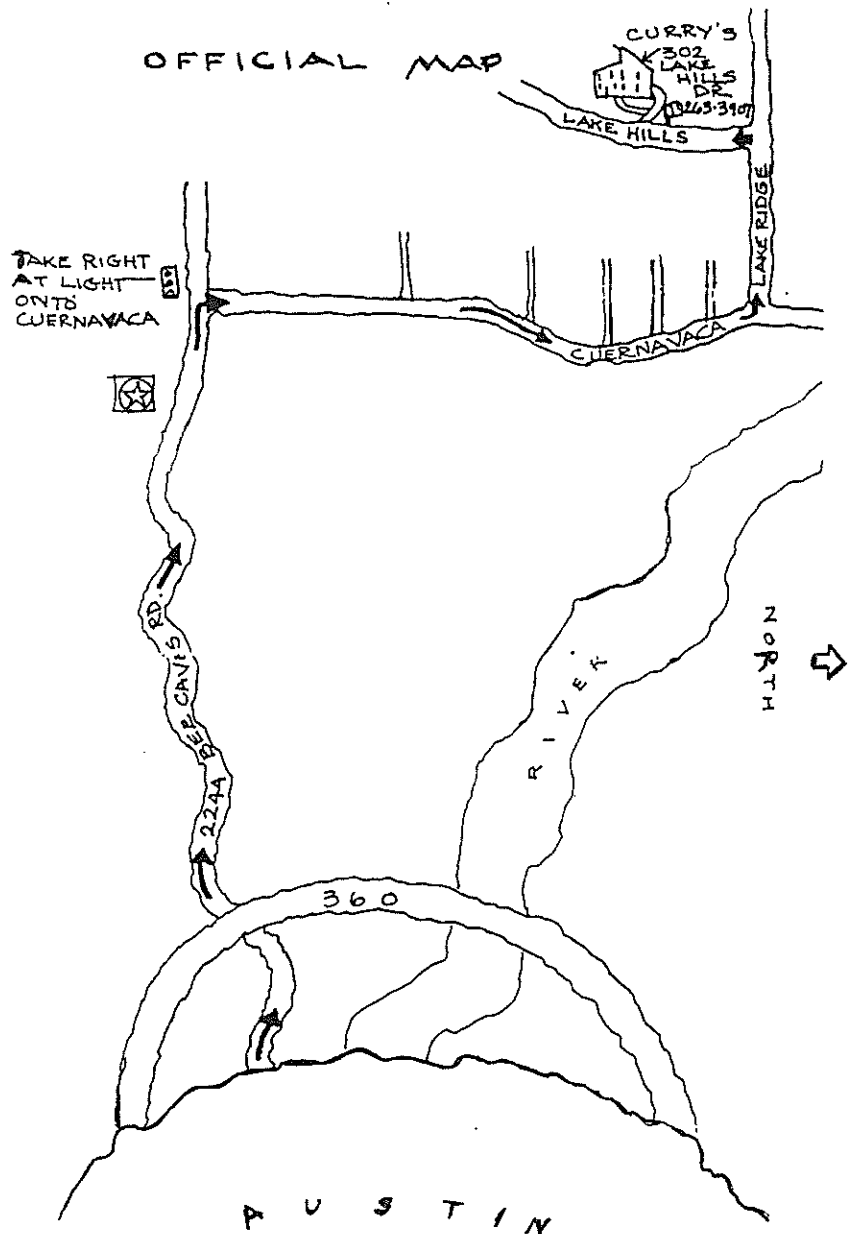
Hmm! Sounded like there was a need for the Society to try its hand at "public outreach". So Wendy Donaldson, John Smith, and myself formed our own version of a Rapid Assessment Team and, on Friday, July 19, headed for Smithville. We arrived at Mollie's house at approximately 6:30 PM. She graciously showed us her yard, replete with sandy soil, ants, and native grasses. Our first encounter of the reptile kind was with a rather large Texas spiny lizard which was hanging out by the air conditioner. No horned lizards to be seen, however.

Then, as our undaunted team was admiring an active harvester ant mound near the back of the property, Mollie announced the day's first horned lizard sighting. Sure enough, a juvenile "horny toad", about an inch and a half in length, was making its way toward the sandy strip near the foundation of Mollie's house. In due time, three more baby horned lizards made their appearance, all about the same size and evidently from the same hatch. The first adult horned lizard we encountered scurried underneath a chain link fence and then beat a hasty retreat from the neighbor's retriever before we could take its vital measurements. Some time later an adult, most likely the same one we had seen before, appeared near the large harvester ant mound. This time we took its measurements — about four and a half inches, head to tail. Wendy determined the lizard's sex to be female, indicating that this was possibly the proud momma of the strapping young cornutums we had seen before.

We finished off the day by collecting ants, maybe six or seven different species were present on Mollie's small lot, and then watched with delight as one of the young horned lizards buried itself in the sand. We seem to have come across a situation which is ripe for a happy ending. We have horned lizards thriving in a suitable habitat and a caring landowner anxious to insure their survival. What we need now is a plan by which Mollie can attain her landscape goals — no grass burrs, etc. — without unduly impacting the horned lizards' environment. ▲

## PARTY!

Come all ye hornytoaders, near and far. Be ye members, nonmembers, former members, soon-to-be members or slightly interested. We're having a party! Tom and Susan Curry have made their lovely home available to us for an evening of revelry. Their place is full of Tom's art and many interesting guests have been invited. Saturday, August 3, is the date, 7:30 p.m. is the time. Bring munchies and drink you'd like to share. Its at 302 N Lake Hills Drive:



**A Research & Recovery Committee Report —  
Money Doesn't Grow on Trees**

*By Wendy Donaldson, Research and Recovery Chair*

A major goal of the Research and Recovery committee (and HLCS as a whole) is to encourage, guide, and support scientific research on horned lizards. The first project we must consider is a status survey on the Texas Horned Lizard (*Phrynosoma cornutum*).

A status survey will accomplish three main objectives:

1. Assess the historical distribution and abundance of *P. cornutum*.
2. Assess the current distribution and abundance of *P. cornutum*.
3. Investigate and assess the potential factors implicated in the reported decline and disappearance of *P. cornutum*.

These objectives are primary concerns of the R & R committee and require considerable work. Procedures include collecting all museum records and literature possible, conducting time-constrained field surveys on a minimum of 100 sites, investigating the interactions between horned lizards and fire ants, determining the extent of pesticide/insecticide use and their effect on horned lizard populations, quantifying the extent of habitat alteration and destruction, and possible effects of illegal trade or past collection of horned lizards for sales purposes.

We are fortunate that Dr. Andy Price has prepared a research proposal for a status survey, and the proposal has already received approval and funding by the U. S. Fish and Wildlife Service. USFWS has set aside \$7,067 through its Section 6 funding program. The program is a cooperative project between the federal and state agencies that provides research money based on a 75% : 25% match in funds (USFWS provides 75%). However, no one has accepted the project for 2 years, and with the end of the fiscal year close at hand, the funds must be reinstated for 1992 based on Dr. Price's recommendation. With no qualified researchers currently interested, the funds may be taken away from a horned lizard status survey in order to fund research on any of the other 70+ species listed as Threatened, unless the HLCS shows promise in its ability to recruit someone. (Dr. Price will be speaking at the next general meeting on Aug. 13)

The minimum amount of money needed to match the USFWS grant is \$2356 which can come from the state or

other means. Considering Texas' current financial situation, we must believe that matching funds must be made available by our organization. However, \$9423 total is not much of an incentive to prospective researchers for such an intensive study, and is probably the primary reason no one has agreed to do the project. Two to three times the above amount needs to be considered (\$18,846-\$28,269) if we wish to attract a qualified researcher. This translates into a minimum of \$11,779 that HLCS should raise for such a project which we are inherently interested in.

It would take some time for us to raise the necessary money using membership dues and selling T-shirts, and unfortunately, money doesn't grow on trees. Members of the Research and Recovery committee have often and thoroughly discussed possible fund-raising activities. Joyce Snodgrass and Lee Stone are attempting to organize benefit concerts at La Zona Rosa and The Broken Spoke for the purpose of raising money to support research. However, these activities should be organized by a fund-raising committee, not the R & R committee. It disturbs me that we are taking on the responsibilities of another section of HLCS at the cost of taking valuable time and personnel away from my committee. I often wish that a requirement of membership in HLCS was not only paying dues but also active participation. Anyone who has experience in organizing benefits, knows people in the music industry, or simply wishes to help out should contact Joyce (259-3717) or Lee (476-1663).

Get Involved!!!! ▲

# Vote

Here are the 9 proposed designs for the HLCS logo. Choose the design that you like best, and vote for it by number. Votes will be taken at the August 13th general meeting. If you can't attend, call Steve Austin at Grey Matter Design, 441-1266 and give your vote to Steve. You may leave a message on the answering machine by saying that you are voting for HLCS logo number \_\_\_\_.

Keep in mind that these reproductions have been made from copies of reduced copies, and will be much cleaner and crisper when reproduced correctly. They will also be combined with type for our address to be used as letterhead, envelopes, brochures, etc.

Thank Steve Austin for his hard work in designing several logo designs for the membership to choose from. He has put in a lot of time and effort to present these designs.

Also thanks to Mark Lind for his design, and to Hal Irby for the use of his horned lizard drawings. ▲


## Please Join Us NOW!

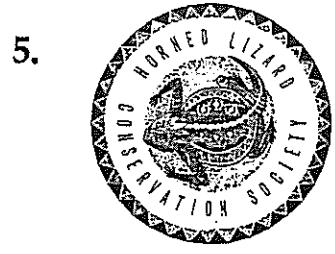
- Students - \$10
  - Subscribing - \$10 (newsletter only)
  - Regular - \$25 • Contributing - \$50
- Mail fees along with Name, Address, Phone Number and comments to:  
Horned Lizard Conservation Society,  
P.O. Box 122, Austin, Texas 78767

## THANK YOU, SOUTHWEST AIRLINES!!!

Southwest Airlines has generously provided 2 airline tickets for members of the Research and Recovery Committee to visit the Deep Boyd Canyon Desert Research Center. Please remember their contribution when making your travel plans.

# For Your Favorite Logo Design!

1.   
**HORNED  
LIZARD**  
CONSERVATION SOCIETY



**Horned Lizard  
Conservation Society**  
Post Office Box 122 ♦ Austin, Texas 78767

2.   
**Horned Lizard  
Conservation Society**  
Post Office Box 122 ♦ Austin, Texas 78767

6.   
**Horned Lizard  
Conservation Society**

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Conservation Society**

7. **HORNED  
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Conservation Society

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**Horned  
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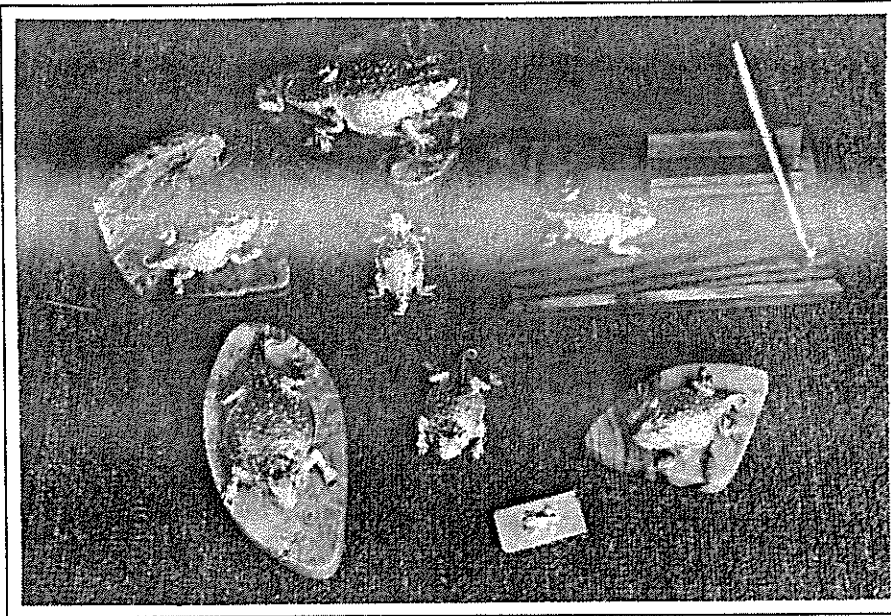
9. **HORNED  
LIZARD**   
**CONSERVATION SOCIETY**

# Horny Toad Connection Made!

by Bill Davis

I went to Albuquerque, New Mexico and met Tom McCain who owns the Horny Toad Connection. Super guy. He makes Horny Toad jewelry, ornaments, money clips, etc. Important note: He *does not* use real Horny Toads in any way. All of his molds are hand crafted and his product looks real due to his skill and attention to detail. I bought 25 items (won't my wife be surprised!). I'm going to have a Horny Toad Christmas. I also obtained a price list and picture of his more popular items. Of course I encourage all our members to order something and I believe we can use some of his works for fund raising. Tom loved our T-shirts and bought a membership. He is willing to speak at one of our meetings while in town for a craft show. I encourage everyone to order or visit his shop. He is knowledgeable, interested in our society and a damn nice guy.

A price list and a picture of some items are below. For more information or to order, contact Horny Toad Connection, Inc., Tom and Luann McCain, 9419 Central N.E., Albuquerque, New Mexico 87123, (505) 299-9247. ▲



# Leapin Lizards . . . 3 Species!

by Bill Davis

On my recent trip to Clovis, New Mexico I drove north to the small community of Logan. While I was there I met an old guy who told me he had 3 or 4 Horny Toads in his backyard. "My grandkids play with them all the time". Although it was the middle of the day, I started looking around. After a long look I scared a toddler toad into running. He was a Texas variety and could sit on my thumb. Talk about wanting to bring him home! I satisfied myself with shooting a whole roll of film before turning him loose. He ran under the nearest weed and disappeared. It occurred to me that the place could be full of Horny Toads and you'd never know it.

I found two more Horny Toads several days later but in a different part of New Mexico. It didn't surprise me to find the Texas horned lizard mentioned above because I was near the Texas border. The next Texas horned lizard I found was in south central New Mexico. He was a full size adult. I caught him because I knew he's go for the shade and try holding still when I got too close.

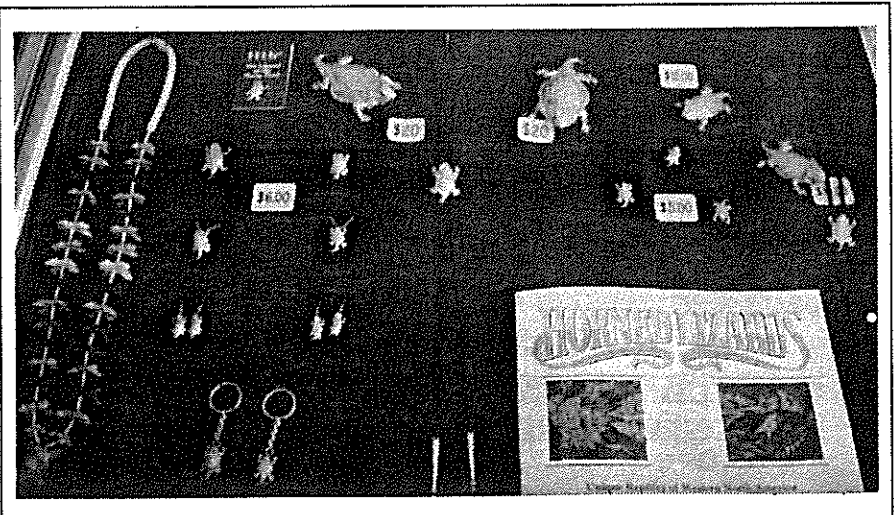
And finally, south of Socorro, I found a short horned lizard that appeared to be an adult. It was very exciting to see a new species but he was not near as cute as the Texas variety.

So, in two trips to New Mexico I have caught and photographed a Texas, Roundtail and Short-horned lizard. I suspect it will be awhile before I see any of the others. ▲

## Price List

Retail	25-99	100-499	500+
All Pins			
5.00	2.50	1.25	1.00
Earrings			
6.00	3.00	1.75	1.40
Necklaces			
6.00	3.00	1.75	1.40
Key Rings			
6.00	3.00	1.75	1.40

All items may be combined for quantity discounts. Add \$2.00 for shipping and handling. Allow 3 weeks delivery.



## PHRYNOSOMA PHACTS ... from page 1

biological temperature through behavior. A variety of tactics are used depending on the lizard's current environment.

### Keeping Warm

The most obvious thing a horned lizard can do when it needs to raise its body temperature, is to sit out in the sun. This behavior is called *basking* and is used in conjunction with other behavioral and physiological responses.

While basking, a horned lizard may straighten its forelegs in such a way as to raise the front part of its body at about a 45 degree angle. This is especially true in the mornings and evenings when the sun's rays are nearly parallel with the earth's surface. The lizard orients its body so that it is facing away from the sun and its back can get the full effect of the sun's warming rays.

If a lizard is on a dark substrate, it may flatten itself against the surface. Since dark surfaces absorb more heat, this provides the lizard with more surface area in contact with the warm substrate.

Horned lizards are also able to change color in response to thermal requirements. They become darker colored when cold, allowing more heat absorption, and lighter colored when warm.

When the temperature becomes too cold, horned lizards burrow. They may bury themselves just below the surface to avoid the cool of the evening in spring or fall but during the winter they are known to burrow as deep as one foot below the surface.

### Keeping Cool

Like all reptiles, horned lizards are not able to sweat. Some species, such as the Texas horned lizard, will pant when exposed to high temperatures. Others, such as short-horned lizard, have accelerated breathing under these conditions but do not open their mouths and pant. Species which exhibit panting behavior are able to withstand higher temperatures than those that do not.

Horned lizards seek out shade when they are hot. They may hide under brush or tall grass or they may slip into crevices in between rocks. They have also been known to crawl into the burrows of other animals.

### Putting it all together

Using the behavior and physiological responses described above, horned lizards are able to maintain their body

temperature within a narrow range during their periods of activity. This requires a complex exchange of behaviors based on changing thermal requirements during the course of a day or a year.

As an example of how temperature influences lizard behavior, I would like to summarize the behavior pattern of a Spiny Lizard (genus *Sceloporus*).

Body Temperature	Lizard Behavior
< 0 C. ( < 32 F.)	Lethal
0-8 C. (32 - 46 F.)	Cold narcosis. Movement not possible.
9-12 C. (48 - 54 F.)	Movement limited.
13-20 C. (55 - 68 F.)	In retreat or under cover.
21-23 C. (70 - 73 F.)	Emergence from retreat or search for cover.
24-30 C. (75 - 86 F.)	Basking.
31-38 C. (88-100 F.)	Normal activity.
39-41 C. (102-106 F.)	Maximum temperature voluntarily tolerated.
>41 C. ( >106 F.)	Lethal

From Goin and Goin

You might notice from this chart that the lethal high body temperature is very close to the upper limit for normal activity. Although this may seem strange at first, it is similar to the situation for mammals. For example, in people a fever of over 106° F. is generally fatal. This is only 7.4° F. (4.1° C.) higher than normal body temperature.

Goin and Goin give the preferred active temperatures of three species of horned lizards as follows: *Phrynosoma cornutum* (Texas horned lizard): 35° C./ 95° F., *P. platyrhinos* and *P. m'calli*: 37° C./99° F. ▲

#### References:

- Milne, L.J. and Margery J. Milne, "Notes on the Behavior of Horned Toads" *The American Midland Naturalist*, Vol 44, No. 3, 1950
- Stebbins, Robert C., *Amphibians and Reptiles of Western North America*, 1954
- Goin, Coleman J. and Olive B. Goin, *Introduction to Herpetology*, 1971

## Researchers Help . . .

from page 1

It might also be good to measure horned lizard abundance in invaded and non-invaded areas.

I assume that you are in contact with Sanford Porter and Delores Savignano of the Department of Zoology and Brackenridge Field Lab of UT Austin. They recently published an article ... that documents effects of fire ants on the arthropod community.

As to your questions regarding management:

1. **Acreege—as big as possible.** I observed horned lizards moving as far as 300 meters in a single day, thought this was rare. The bigger the area the less you'll have to worry about road kills, etc.
2. **Minimum population:** I'm not really up on that literature.
3. **Gender:** I noticed that females often avoided males; I think they wanted to avoid constant following and attempted matings that would attract predators. I would err on the side of more females than males. I assume that males are capable of performing multiple matings.
4. **Exclusion of off-road vehicles** is critical. They kill individual lizards, compact the ground to prevent digging, kill vegetation, etc.
5. **Grazing** would probably cause similar problems, if overly intense....

Best of Luck,

James C. Munger, Ph.D.

**HLCS Notes:** The imported fire ants *S. invicta* reach vastly greater numbers per mound than any of the other ants. Given what Dr. Sherbrooke says about how horny toads hate being stung, it would be hard to imagine that imported fire ants would be an important part of toad diets. However, the question that Dr. Munger raises will be raised again by others. We will just have to take a look at those fecal pellets! The paper by Porter and Savignano to which Dr. Munger refers documents the huge losses of other insects - including the favorite food of horny toads, the harvester ants - due to fire ants. We will publish a more detailed summary of that paper in a later edition. Dr. Sanford Porter is no longer at the University of Texas. ▲

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## Lessons from the Horny Toads

It is said that everything important in life one learns in kindergarten. If this is true, I am in a bad way, because I remember zip. Fortunately, I do remember the lessons I learned as a child from the horny toad, and I would like to share a few with you.

My brother Bill is three years younger than I, but despite his relative youth (or perhaps because of it), he was the premier hunter of horny toads in our neighborhood. I think it was this attribute that eventually convinced me that my brother was in fact good for something. (I do not count the uncanny ability to collect sackloads of candy on Halloween, as he would not share.)

I quickly realized that Bill's willingness to rise at the impossible hour of 7:00 allowed him to capture the most horny toads. I think the magic of a new day with all its attendant discoveries would years later encourage him to rise before dawn to run a paper route. I myself frequently joined him for a second trip down the concrete "ditch" next to our house, an open culvert into which all manner of wildlife would fall, and so become trapped. We brought with us a carrier built by our dad, a cumbersome contraption of plexiglas and wire screen which constantly bumped our knees. We soon learned to walk carefully, and to share the burden.

In our quest for the horned toad, we became intimately familiar with the fauna of Texas: roadrunners, skink lizards, salamanders, and several species

of turtles, frogs, and snakes. On one memorable occasion, we chased a skunk (which had *not* had the operation) and attempted to lasso him. From this episode we discovered that some goals are better left unobtained.

The best catch was, of course, the horned toad. There were two different types in our area, the Texas and the Roundtail. The Roundtail was called a "sandy", rarely encountered, and special for that. We carefully chased down the little lizards and deposited them in our cage. Returning home, we would stroke the dark stripe on their backs until they blew out the air from their puffed bodies and were again content. We also rubbed the tops of their head until they shut their eyes, believing that they enjoyed the attention. Held gently, the creatures remained quite docile. However, we discovered that an occasionally firm hand was needed to prevent a precipitous fall, a useful thing to know when dealing with others.

It was very common to have our mother ask us to fetch our most recent arrival for the inspection of other adults. This we were glad to do. Surprising to us, most of them thought the little lizard to be ugly and frightening. We did our best to calm their adult fears of the unknown, and show them the friendliness and beauty we saw so plainly resting in the palm of a hand.

If there was a sin, it was to harm one of our little friends. We knew from local legend that a horned toad would spit

blood if attacked, and saw many with dried blood around one or both eyes. I never personally witnessed the phenomena. I remember other boys who told stories of cruel things done to the lizards in sport. Billy and I always thought such tales to be hateful, and there was an unspoken agreement that those persons who would do such things were lesser for it. My brother and I kept our horned buddies a couple of days, and then let them free back in the fields from whence they came. I can't recall ever having one die in our care. We would leave them a little water and try to give them ants to eat, but they rarely did, and we knew that to survive they had to be free.

It has been over twenty years since I have held a horned toad. Although I lived in Austin and Dallas for most of that time, the little lizards became a distant memory. Perhaps it is best that way. As children, we valued the little fellas in part because they were so elusive, and most of our hunts came to naught. But we found that if you look carefully and keep a good heart, nature often offers special gifts.

I wish the organization all the luck in the world. We need to cherish the special moments and yes, even the little horny toads, that make life worth living. ▲

— Don Davis  
HLCS member – Pembroke, Florida  
(brother of our fellow member Bill Davis)

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### Newsletter Input

Please help build this newsletter! We need articles, graphics, maps etc. Send to: Marcia Jenkins, c/o The Reference Press, 6448 Hwy. 290 East, Suite E-104, Austin, Texas 78723. Articles of more than 100 words must be: (1) typed originals, or (2) provided on a Mac or PC disk. Deadline for articles is first day of the month. Questions? Call Marcia Jenkins at 454-7778 weekdays or 512-321-7579 eves.

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## Horned Lizard Conservation Society

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